THE LAST CRUISE OF THE ALBATROSS.

The U. S. fish-commission steamer Albatross, arrived at Wood's Holl, Mass., July 16, from her first cruise to the important fishing-banks located off the coasts of the maritime provinces, where she had been making extensive investigations in the interests of the cod and halibut fisheries for about a month. Most attention was paid to the region of the Grand bank, south of Newfoundland, including its northern, western, and southern slopes, and the adjacent waters of Green's and St. Peter's banks. Thence the explorations were continued across Banquereau and Misaine bank, and as far to the westward as LeHave bank. On the homeward passage, a few observations were made along the outer slope of George's bank. Over a hundred hauls were made with the beam-trawl and dredge, and much hand-line fishing was done. An attempt was also made to obtain specimens from the bottom by means of torpedoes exploded in a depth of about forty-five fathoms; but without success, only two or three cod and haddock coming to the surface. These experiments clearly proved that only such fish as possess large swim-bladders are likely to float after having been killed at the bottom in this manner.

The results obtained on this cruise are of great value, and an exceedingly large number of specimens serving to explain the character and resources of the fishing-grounds was secured. These explorations are, in fact, the first of the kind that have been made of the outer banks to the eastward of the meridian of Halifax; and they furnish us with the first connected series of observations that has been obtained regarding one of the most important fishing-regions of the world. They are also of especial interest at this time, in view of the probable re-opening of fishery negotiations between the United States and Canada. Almost the only previous information we possessed respecting the fauna of the great banks was secured through the agency of the Gloucester fishermen, whose services to the Fish commission since 1878 have already been made known.

The cruise of the Albatross, just ended, is to be regarded as scarcely more than a preliminary one, since there are many important problems bearing upon the distribution and migrations of food-fishes over the great banks, which invite a prolonged series of careful investigations according to modern methods of research. It was noticed, that, on some portions of the Grand bank, where good fares were being obtained by the fishing-vessels, the bottom was comparatively barren of life; leading to the conclusion, that, over some areas, the fish must feed mainly upon free-swimming animals above the bottom, and that the true value of a fishing-ground cannot always be determined by means of the dredge.

As incidental features of the cruise, careful sounding observations were made at the reported locations of Hope bank, Watson's rock, and the Jesse Ryder rock, without finding any traces of their existence. Many icebergs were observed south of the Newfoundland coast, and foggy weather frequently interfered with operations.

Lieut.-Commander Z. L. Tanner, U.S.N., was in command of the Albatross, with Capt. J. W. Collins in charge of the practical fishery investigations, and Mr. James E. Benedict as chief naturalist, assisted by Mr. Sanderson Smith, Mr. Willard Nye, jun., and Mr. Thomas Lee.

REFORM IN GEOGRAPHICAL ORTHOGRAPHY.

THE absence of system in geographical orthography, especially in English maps, and the consequent confusion and variety that exist in the spelling of foreign names on such maps, have necessarily attracted the attention of cartographers of every country. The council of the Royal geographical society has taken the matter up, and proposes what seems to us, on the whole, a very satisfactory set of rules, which will hereafter be used in all the publications of the society. These are in brief as follows: Names of countries in which the Roman alphabet is used will be spelled as by the respective nations. Names familiar in a certain form (ex., Calcutta, Celebes, Mecca) in English literature will be retained unchanged. The true sound of the word, so far as it can be indicated by the system as pronounced by the local population, will be reproduced as the basis of the spelling. In general, the vowels will be pronounced as in Italian, and the consonants as in English. Only one accent, the acute, to denote stress, will be used. Every letter is pronounced. To shorten the vowel, the consonant following it is doubled (ex., duty, putty). The spelling of Hunter's Monumental gazetteer of British India will be followed for Indian names within its limits.

These rules are essentially such as have governed American philologists under the lead of George Gibbs for many years, and, while not equal to the refinements of the lexicographer, are abundant for daily needs. Those who use maps cannot be bothered by minute shades of difference in pronunciation, which can only be properly studied on the spot where they exist.

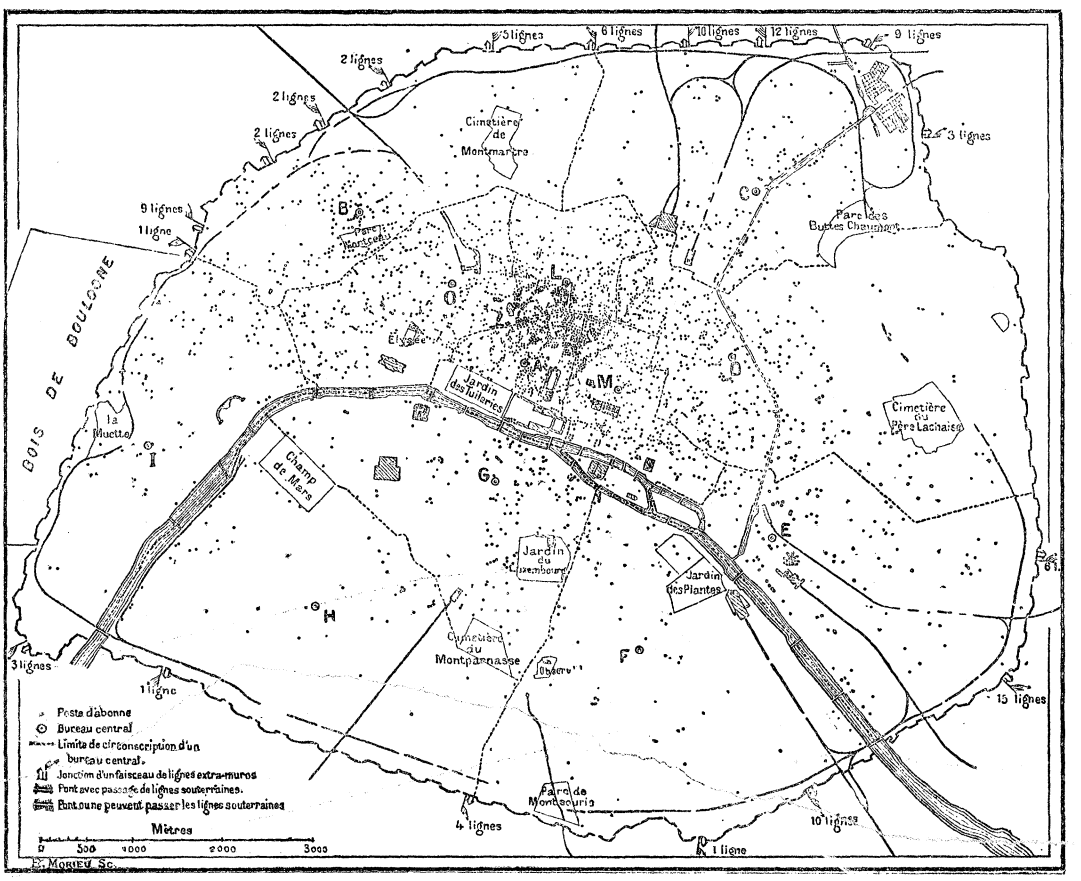
It will be observed that the treatment is far from radical, and eminently practical: the only wonder is, that it has been so long deferred. The time for an international alphabet for map use, whose letters shall have invariable values, which would be the most satisfactory solution, is likely to be long deferred on account of certain obvious though unscientific objections. The proposal now made is in the right direction, and its principles have to a large extent been adopted already on the admiralty charts, and by leading geographers of various nations.

THE TELEPHONE IN PARIS.

WE reproduce from *La nature* a map showing the distribution of telephone subscribers in Paris. This map gives all the offices of the subscribers, represent-

ed by dots: it shows the central bureaus, A, B, C, D, E, F, G, H, etc., and gives other information as indicated in the legend.

The telephone system of Paris is, after that of America, one of the most prosperous, numbering at the end of last April thirty-eight hundred subscribers, very unequally distributed over Paris and the suburbs, as is easily seen from the map which shows their distribution Oct. 1, 1884, with the points of attachment of the lines outside of the city walls starting from each of the gates. In the Opera and



MAP OF PARIS, SHOWING THE DISTRIBUTION OF TELEPHONES (*La nature*).

Sentier districts, the subscribers are most abundant. There are a dozen district offices so distributed as to insure the service with the minimum of conductors; the system being, as is known, almost entirely subterranean. Between each of these twelve offices, and the eleven others, there are auxiliary lines sufficient to establish communications between the subscribers, by passing through two district offices at the most, whatever be the distance between the subscribers. The number of these auxiliary lines naturally varies with that of the subscribers connected with each district office.

PROFESSOR SUMNER'S ECONOMIC ESSAYS.

"ONE may read, in scores of books and articles, that political economy is passing through a transition stage. . . . It is certainly true that there is no body of economists engaged in carrying on the science of political economy by a consistent development of its older results, according to such new light as can be brought to bear upon them. . . . A host of writers have been busy for the last twenty years, introducing conflicting and baseless notions, which, for want of a competent criticism, have won standing in the science. Others have made a boast of turning their backs on scientific method, and of describing, by way of contributing to political economy, some portion of the surface appearance which is presented by

Collected essays in political and social science. By WILLIAM GRAHAM SUMNER. New York, *Holt*, 1885.